

# METHOD FOR GENERATION, DELIVERY, AND VALIDATION OF ELECTRONIC COUPONS THROUGH PERSONAL TV SERVICE SYSTEM

## ABSTRACT

A process for coupon generation, delivery, and validation over a personal TV service system is disclosed. A client issues electronic coupons to personal TV service customers via a personal TV service center which generates a coupon authentication number for each receiver. The coupon authentication number is known to the key server and the coupon authentication number database. It is also known to the receiver in encrypted form. The product serial number for each receiver acts as a public key, which is known to both the customer and the personal TV service center. A unique offer ID number is assigned to each coupon. When the receiver receives the coupon, it performs a hash operation on the offer ID number using the authentication ID number and takes first or last N digits of the hashed result as the coupon ID number. The customer may redeem the coupon by submitting the offer ID number, the receiver serial number, and the coupon ID number. Before the coupon is redeemed, it must be validated. The personal TV service center takes the receiver serial number as a public key to look up the unencrypted coupon authentication number stored in the database and performs a same hash operation on the offer ID number using the authentication number. The key server takes the first or the last N digits of the hashed result and compare this number with the coupon ID number submitted by the customer. If these two numbers match, the coupon is validated.